



SR 18 Maple Valley to Issaquah Hobart Road



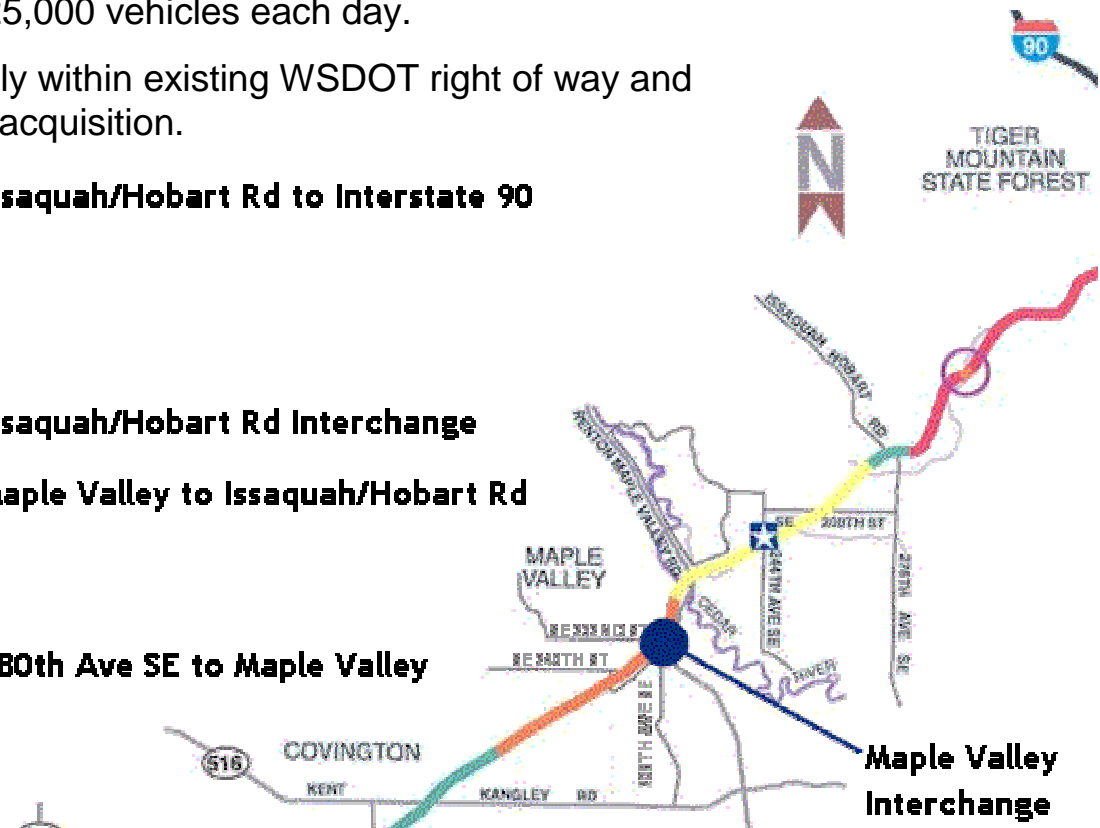
this... Sample to show look
of finished project.
Scheduled for construction
Summer 2003.

This project, a portion of a larger project to widen SR 18 from Auburn to North Bend, is a 3.7 mile stretch of highway located between Maple Valley and the Issaquah Hobart Road. Traffic volumes are on the order of 25,000 vehicles each day.

The project was designed to be built partially within existing WSDOT right of way and partially on land requiring new right of way acquisition.

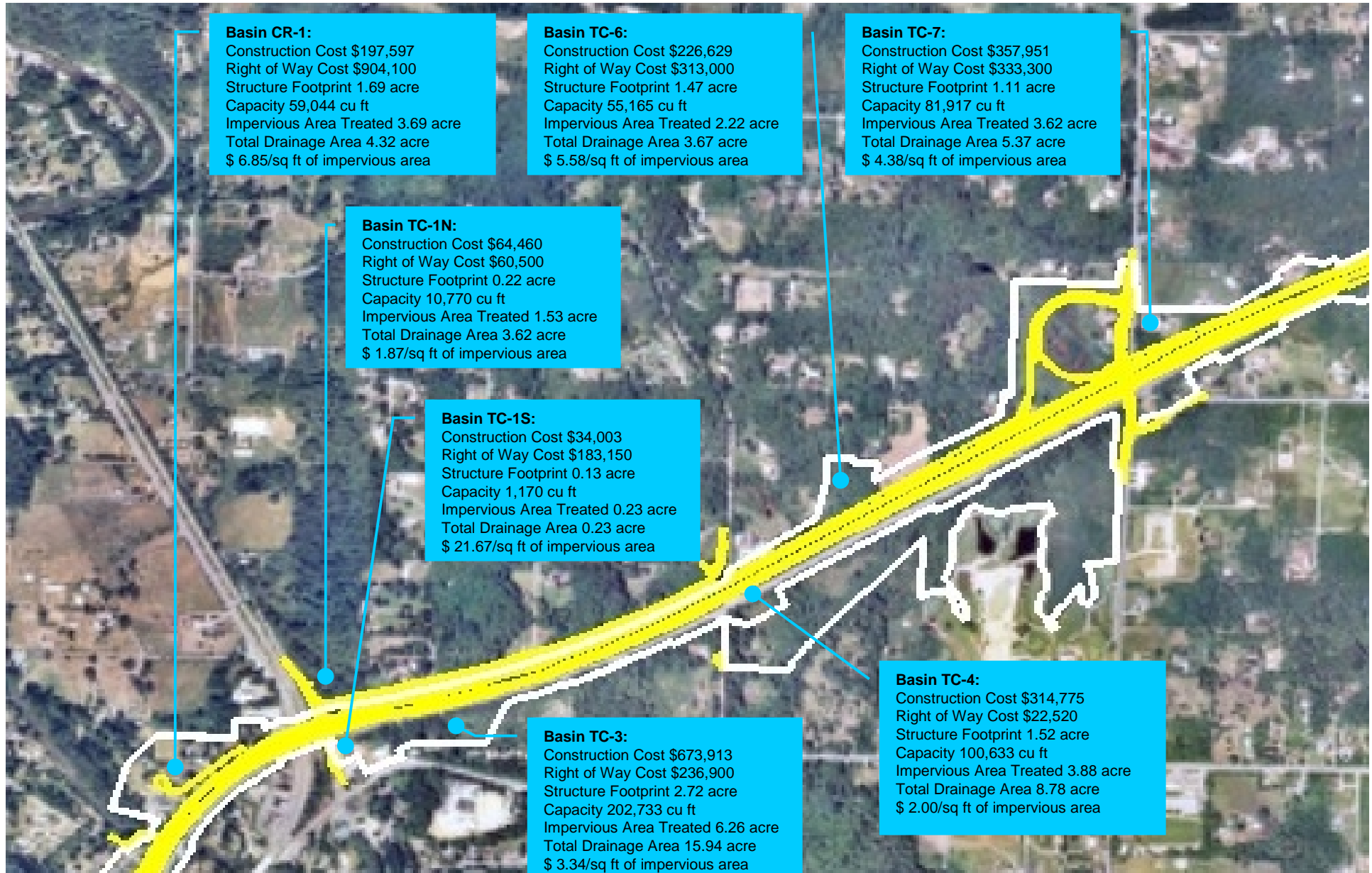
Planning and design work on the project commenced in 1985. It is scheduled to begin construction summer 2003.

The total cost to complete this project, including planning, design, right of way, and construction, is estimated at \$82,080,000.

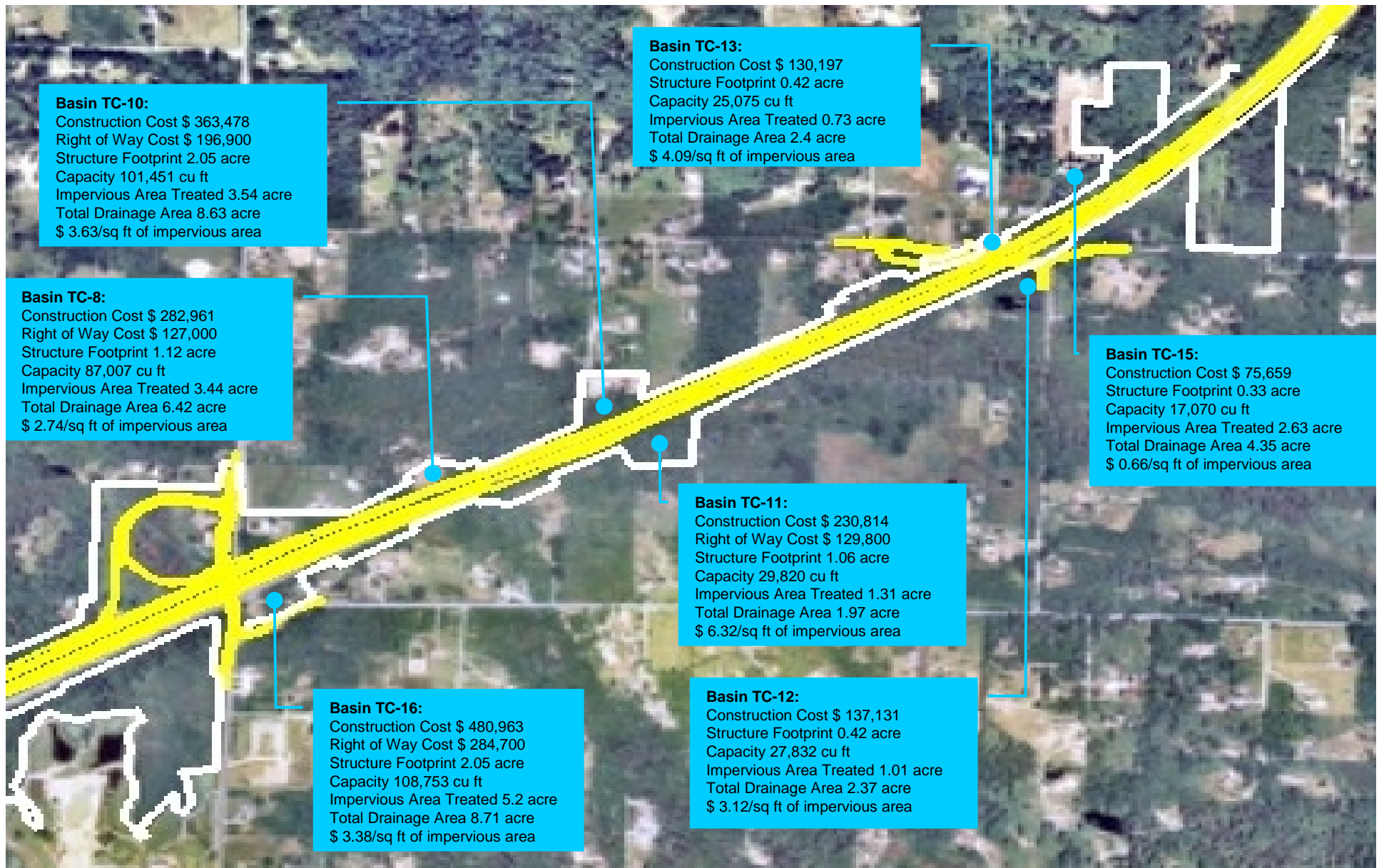


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Stormwater Treatment Mitigation



SR 18 Maple Valley to Issaquah Hobart Road Stormwater Treatment Mitigation



SR 18 Stormwater Infiltration and Detention

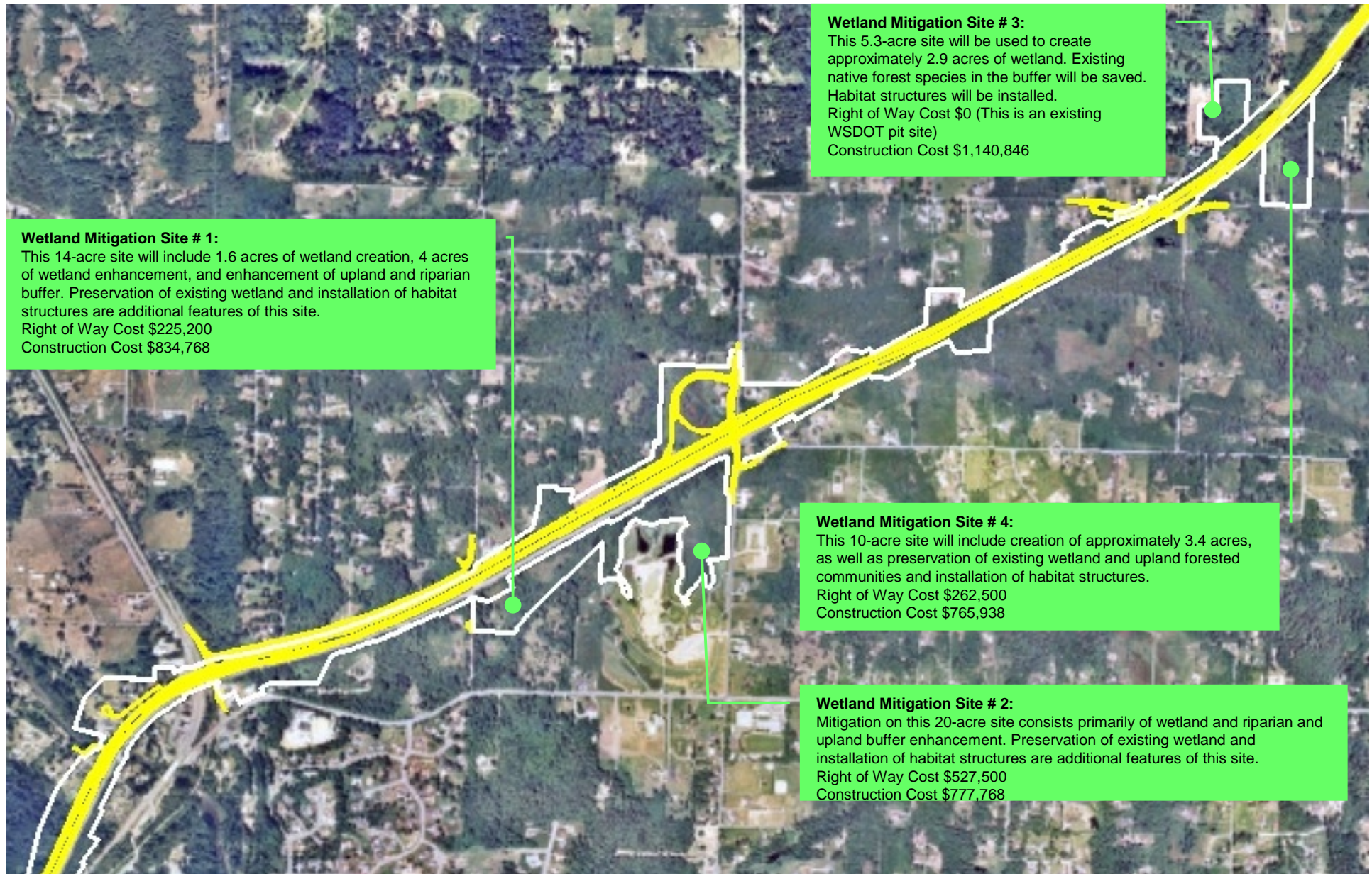


Excessive runoff from impervious roadway surfaces can create problems for streams, water bodies, and wetlands. Under existing conditions, there are 15.99 acres of impervious surface area, none of which is currently treated. The project will add 23.43 acres of impervious area for a project total of 39.42 acres of impervious surface that will be treated for water quality and quantity.

The project will construct a total of 14 ponds; 3 wet-pools, and 11 combination detention pond/wet-pools. The estimate for construction of these facilities is \$5,130,000. The cost of the right of way to construct these facilities is \$2,790,000. Approximately 49 percent of the project total right of way cost is attributed to stormwater detention and treatment. The cost to design these systems was \$246,000. The total cost to treat stormwater will be \$8,170,000 or \$4.76 per square foot.

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Wetland Avoidance and Mitigation



SR 18 Wetland Avoidance and Mitigation

The wetland impact analysis prepared for this project shows unavoidable impacts totaling approximately 7.7 acres. Extensive measures were taken to avoid and minimize impacts to wetlands and streams and their associated buffers.

From the beginning of the project to the vicinity of the proposed 244th Avenue SE interchange, the widening will occur on the north side of the existing roadway. From this point to the end of the project, the widening is on the south side of the existing roadway.

The interchange design itself was modified from a standard diamond configuration to a tight diamond in the eastbound direction and a folded loop configuration in the westbound direction. The interchange was moved to the north, allowing construction of the eastbound ramps on the existing roadway. Finally, retaining walls and fill slope modifications were utilized in an effort to avoid and minimize the impacts.

Wetland mitigation is proposed on 4 separate sites located adjacent to SR18 right of way and totaling 49.3 acres of mitigation. The mitigation includes creation of new wetland, enhancement of existing wetland and buffers, as well as preservation of existing quality wetland. Additional mitigation on these sites includes installation of habitat structures, such as rock piles, brush piles, large woody debris, stumps, snags, and wildlife habitat boxes.

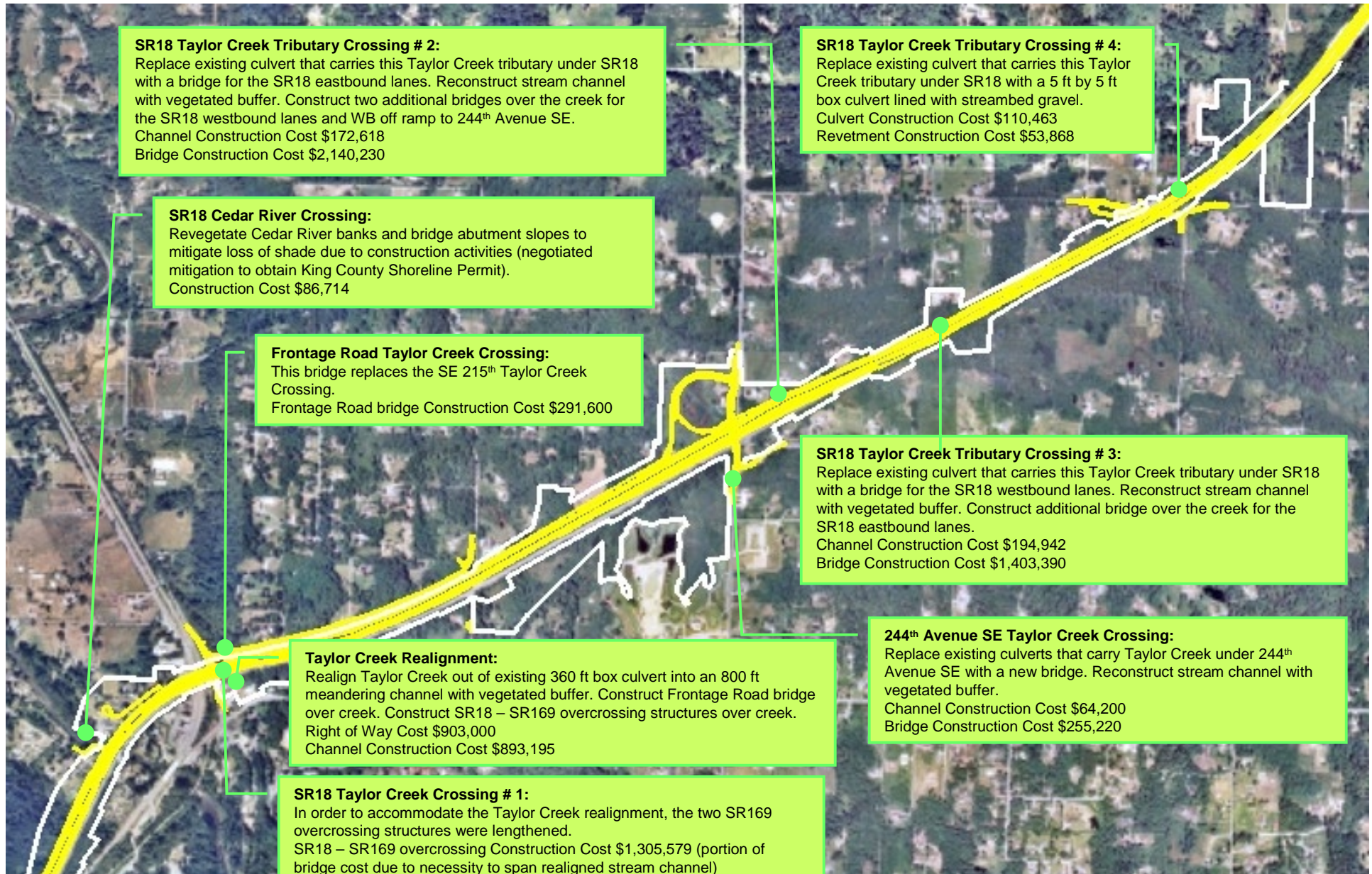


The estimated construction cost of wetland mitigation is \$4,244,000. The total right of way cost for wetland mitigation is \$1,015,000, for a total cost of \$5,260,000.

The cost of retaining walls, designed into the project to minimize impacts to wetlands, is \$1,688,000. The total cost including design of wetland is \$7,290,000, or 9% of the total project.

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Stream Mitigation



SR 18 Maple Valley to Issaquah Hobart Road Bridges for Culvert Retrofit/Stream Mitigation



SR18 and three county roads cross Taylor Creek and its tributaries in six locations within the project limits. The existing crossings are culverts. Four of these crossings will be replaced with a total of seven bridges. One crossing will be replaced with an 800 ft realignment of Taylor Creek. The two bridges over SR169 and a county road will be extended to accommodate this stream realignment.

The channel will be reconstructed with a vegetated buffer in all of these locations. A small spring-fed tributary to the Cedar River will be filled as a result of the proposed widening of the highway. A 1000 ft channel with vegetated buffer and enhanced off-channel habitat refuge will be constructed to replace the existing stream.

The total cost to extend the structures beyond what is functionally required to span the stream and mitigate for other stream disturbance is \$12,470,000, or 15 percent of the total project.

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Cost Summary

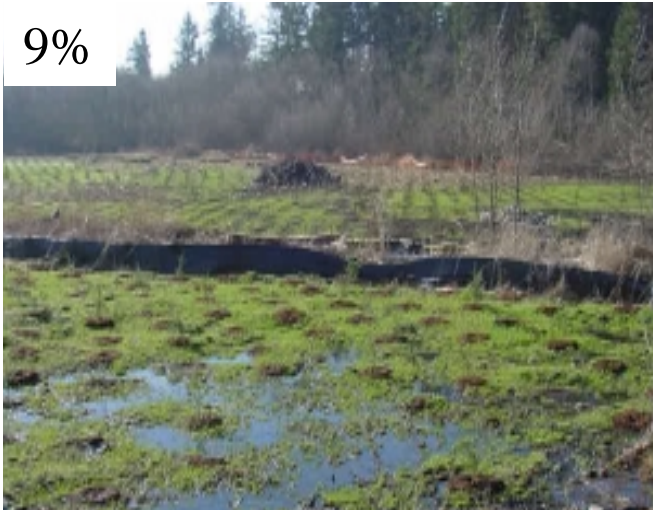
	Const. Cost	Right of Way	Total Mitigation Costs	% of project for Mitigation
Stormwater	\$5.13M	\$2.79M	\$8.17M	10%
Wetland	\$5.98M	\$1.02M	\$7.29M	9%
Bridges/Stream mitigation	\$9.72M	\$2.28M	\$12.47M	15%
Subtotal of mitigation items			\$27.93M	34%
Total Project Cost including design, right of way and construction is \$82.08M				
Construction cost includes mobilization, sales tax, and engineering.				
Total mitigation cost includes design, right of way, and construction.				

10%



Stormwater runoff \$8,170,000

9%



Impact on nearby wetlands \$7,290,000

15%



Bridges for culvert retrofit/stream mitigation \$9,720,000